

IN THE CLAIMS

1. (currently amended) An apparatus of wave energy to electrical energy power conversion comprising:

at least one linear generator having a stator and an armature which can be linearly driven relative to the stator to generate electrical energy and at least one float linked to the armature by ~~means of at least one link~~ link means and which, in use, is immersed in the sea to be subject to the action of waves to drive the armature, the at least one float(s), the link means and the armature and the ~~at least one link~~ thereby constituting a wave-driven mass;

wherein the weight of the wave-driven mass is substantially equal to half the upthrust provided by the water displaced by the at least one float(s) when fully immersed in the water; and wherein the contribution to the weight of the wave driven mass of the at least one float and the ~~at least one link~~ link means is negligible compared with that of the armature; and

further comprising control means used to regulate the effective load impedance presented to the generator or generators in accordance with the strength of the prevailing wave motion acting upon the at least one float, the regulation being such as to ensure that the electromagnetic damping of the motion of the armature of the or each generator as it generates electricity, is always such as to optimise the generation of power.
2. (cancelled)
3. (cancelled)
4. (currently amended) The apparatus of claim 1, wherein the average horizontal area occupied by the at least one linear generators does not exceed to any material extent the horizontal area occupied by the at least one float and any perimeter space surrounding the ~~at least one~~ float(s) for the effective operation and motion thereof.

5. (previously amended) The apparatus of claim 1, wherein the at least one float is equipped with one or more paddles, suitably contoured, to augment the force of the sea waves acting upon the at least one float.
6. (previously amended) The apparatus of claim 1, wherein the at least one float is so contoured as to minimise any wave latent forces acting upon it, while maximising its buoyancy.
7. (previously amended) The apparatus of claim 1, wherein the stator of the at least one linear generator is maintained stationary and substantially perpendicular to the sea bed, and the armature thereof is affixed directly to the at least one float for traversing the stator in accordance with the motion of the waves acting upon the at least one float.
8. (currently amended) The apparatus of claim 1, wherein the stator of the at least one linear generator is held in a cage above sea level, and the armature of the at least one generator is caused to move relative thereto by linkage means to the at least one float.
9. (currently amended) The apparatus of claim 8, wherein the link to the float(s) is a direct extension of the armature of the at least one generator.
10. (cancelled) The apparatus of claim 1, in which control means is used to regulate the effective load impedance presented to the generator or generators in accordance with the strength of the prevailing wave motion acting upon the at least one float, the regulation being such as to ensure that the electromagnetic damping of the motion of the at least one generator as it generates electricity, is always such as to optimise the generation of power.